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10/619,352	07/14/2003	Mark L. Buer	2875.0140001	6343

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EXAMINER	
GEE, JASON KAI YIN	
ART UNIT	**PAPER NUMBER**
2434	

MAIL DATE	DELIVERY MODE
04/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/619,352	BUER, MARK L.	
	Examiner	Art Unit	
	JASON K. GEE	2434	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 February 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19,21,22,25-27,29,30,34-41 and 43-46* is/are pending in the application.

4a) Of the above claim(s) *1-17 and 35-37* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18,19,21,22,25-27,29,30,34,38-41 and 43-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is response to communication: RCE filed on 02/10/2009.

2. Claims 18, 19, 21, 22, 25-27, 29, 30, 34, 38-41, and 43-46 are currently pending in this application.

3. No new IDS has been received on this application.

Election/Restrictions

4. This application contains claim drawn to an invention nonelected with traverse in the reply filed on 02/10/2009. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Response to Arguments

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

6. The previous claim objections have been withdrawn in response to applicant's amendment.

Claim Rejections - 35 USC § 112

7. The previous 112 rejections have been withdrawn in response to applicant's amendments.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 18, 19, 21, 25-27, 38, 39, and 45-46 are rejected under 35 U.S.C. 103(a) as being anticipated by Simon et al. US Patent Application Publication 2003/0093691 (hereinafter Simon), in view of Maufer et al. US Patent Application Publication 2003/0233576 (hereianfter Maufer).

As per claim 18, Simon teaches a method of providing redundancy in a security processing system comprising: establishing a first secure packet from through a first (paragraph 70 and 95) security processor (paragraphs 50, 51, 59); updating security association information associated with the first secure packet flow (paragraphs 59, 79, 80); establishing a second secure packet flow through a second processor (paragraphs 70 and 95) security processor (50, 51, 59, Figure 1, as these processes take place on multiple edge routers); updating security association information associated with the second secure packet flow (paragraphs 50, 51, 59, and Figure 1, as these processes take place on multiple edge routers); sending the updated security association information associated with the first secure packet flow from the first security processor to the second security processor at a first predefined interval (paragraphs 60, 64, 66, 70, 74, and 82, wherein paragraphs 70 and 82 teaches that information may be

distributed directly between edge routers, as it is advantageous to combine the functions of a cryptographic node with an edge router; also discussed in detail in paragraphs 72-73;); sending the updated security association information associated with the second secure packet flow for the second security processor to the first security processor at a second predefined interval(paragraphs 60, 65, 66, 70, 74, and 82, wherein paragraphs 70 and 82 teaches that information may be distributed directly between edge routers; also, Figure 1, wherein it shows multiple edge routers, and wherein the paragraphs teach that the edge routers send each other the updated SA information; also discussed in detail in paragraphs 72 and 73); storing the updated security information associated with the first secure packet flow and the updated security association information associated with the second secure packet flow in the first security processor and in the second security processor (paragraphs 64-66 and 70).

However, at the time of the invention, Simon does not explicitly teach when packets are sent when a sequence number in the security association information associated with teh first secure packet flow reaches a first predefined value. However, Maufer teaches this, such as in paragraph 88, and teaches that these sequence numbers are associated with a first secure packet flow (paragraph 88).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the Simon and Maufer references to teach sending packets after a sequence number reaches a first predefined value. One of ordinary skill in the art would

have been motivated to perform such an addition to increase security and provide integration so that systems are compatible with IPSec's security algorithms. (paragraph 13 of Maufer).

As per claim 19, Simon teaches wherein the rerouting step is in response to a failure of packet flow through the first security processor (abstract, paragraph 79, paragraph 95).

As per claim 21, Maufer teaches wherein the sequence number int eh security association information associated with the first secure packet flow is incremented when a packet in the first secure packet flow is received fromor transmitted to a network (paragraph 88).

As per claim 25, Simon teaches generating at least one configuration packet including the security association information, wherein the sending step comprises sending the at least one configuration packet (paragraphs 54-55).

As per claim 26, Simon teaches sending, by a host processor, configuration information to the first security processor and the second security processor (paragraphs 32-37, 55, 56, 57).

As per claim 27, Simon teaches sending, by a host processor, security association configuration information to the first security processor and the second security processor (paragraphs 32-35, 37, 55, 56, 57).

Claim 38 is rejected using the same basis of arguments used to reject claim 18 above.

As per claim 39, Simon teaches at least one host processor connected to the at least one switch for terminating or initiating the first packet flow and the second packet flow (paragraph 43, Figure 3).

As per claim 45, Simon rerouting the secure packet flow to flow through the second security processor instead of the first (paragraphs 70, abstract, and paragraph 95)

As per claim 46, Simon teaches at least one host processor for establishing a first packet flow to a first security processor and a second packet flow to a second security processor (throughout the reference, and for example, paragraphs 70-73.

10. Claims 22 and 29-30, under 35 U.S.C. 103(a) as being unpatentable over Simon and Maufer as applied above, and in view of Xiong et al. US Patent Application Publication 2003/0061507 (hereinafter Xiong).

As per claim 22, Simon in view of Muafer does nto expliclty teach wherein teh security association finormation assocaited witht eh first secure packet flow comprises at least one bye count. However, Xiong teaches this in paragraph 23.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to include a sequence number with a security association. One of ordinary skill in the art would have been motivated to perform such an addition, as sequence numbers are commonly associated with security associations. This is taught in

paragraph 23 of Xiong.. Also, by incorporating sequence numbers, the transmissions are more secure, as they prevent replay attacks (also found in paragraph 23).

As per claim 29, Simon teaches defining an interval at which to update the security association information in paragraphs 79-80. Xiong teaches defining a quantity to adjust a sequence number in paragraph 23. (this is also taught by Maufer in paragraph 88). Xiong also teaches determining whether to send the security association information according to a comparison of a sequence number with the interval in paragraph 23. Although it does not teach a second processor, Simon teaches incorporating sending security associations to second security processors. Further, as taught by both Xiong and Maufer, the security association information is associated secure packet flows.

As per claim 34, Xiong teaches sending replay window information to the second security processor (paragraph 23, in combination with the Simon reference incorporating the second security processor).

11. Claims 40, 41, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simon and Maufer as applied above, and in view of Rosenow et al. US Patent No. 5,022,076 (hereinafter Rosenow).

As per claim 40, Simon teaches changing the routing of packet flow by either routing the first packet flow to the second security processor instead of the first security processor or routing the second packet flow to the first security processor instead of the

second security processor (paragraphs 72, 73, 75, 76, and 77). However, Simon as modified by Maufer does not explicitly teach wherein the one host processor changes the routing of the packet flow. However, routing processes from one processor to another processor is well known in the art, as taught by Rosenow. Rosenow teaches throughout the reference the routing of processes from one processor to another processor, such as in the abstract and in col. 23 lines 59 to col. 24 line 11.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the Rosenow reference with the Simon and Maufer combination. One of ordinary skill in the art would have been motivated to perform such an addition to provide more reliability by creating a fault tolerant system. This is taught throughout Rosenow, such as in the abstract and col. 4 lines 15-61.

As per claim 41, Rosenow teaches wherein the change in the routing is in response to a failure of the first packet flow through the first security processor or the second flow through the second security processor (abstract; col. 23 line 59 to col. 24 line 11). Also, this is taught in Simon's abstract, paragraph 79, and paragraph 95.

Claim 43 is rejected using the same basis of arguments used to reject claim 40 above.

Claim 44 is rejected using the same basis of arguments used to reject claim 40 above. (it routes to whatever processor is working).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. GEE whose telephone number is (571)272-6431. The examiner can normally be reached on M-F, 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-38113811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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04/02/2009

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